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(FILE 'HOME' ENTERED AT 10:55:18 ON 09 JUN 2006)

FILE 'CA' ENTERED AT 10:55:25 ON 09 JUN 2006

L1 243201 S MASS SPECTRO? OR ICPMS
L2 11880 S L1 AND(SPIKE OR SPIKING OR INTERNAL STANDARD OR ISOTOP?(2A)
DILUT?)
L3 1405 S L2 AND (ELECTROSPRAY OR ELECTRO SPRAY OR API OR ATMOSPHER?
PRESSUR? IONI?)
L4 34 S L2 AND(FERMENT? OR (PLATE OR PLATING OR ETCH?) (5A) (TANK OR BATH
OR VESSEL OR CONTAINER))
L5 936 S L2 AND(COMPOSITION OR CONCENTRATION OR PROCESS? OR QUALITY) (3A)
(CONTROL? OR MONITOR? OR DETECTOR OR DETECTION OR MEASUR? OR
SENSOR)
L6 144 S L5 AND (ICP OR ICPMS OR INDUCTI? COUPL? PLASM?)
L7 101 S L4,L6 NOT PY>2001
L8 1 S L4,L6 AND PATENT/DT AND PY<2004
L9 102 S L7-8

=> d bib,ab 19 1-102

L9 ANSWER 72 OF 102 CA COPYRIGHT 2006 ACS on STN
AN 124:277114 CA
TI Determination of Li by **isotope dilution inductively coupled plasma mass spectrometry**
AU Park, Chang J.; Chung, Bag S.
CS Korea Research Institute Standards and Science, Taejon, 305-600, S. Korea
SO Analytical Science & Technology (1995), 8(4), 427-34
AB **Inductively coupled plasma mass spectrometry** combined with the **isotope diln.** method was used for the detn. of Li. The **isotope diln.** method is based on the addn. of a known amt. of enriched isotope (**spike**) to a sample. The analyte **concn.** was obtained by **measuring** the altered isotope ratio. The **spike** soln. is calibrated through so called reverse **isotope diln.** with a primary std. The **spike** calibration is an important step to minimize error in the detd. **concn.** It was found essential to add **spike** to a sample and the primary std. so that the two isotope ratios should be as close as possible. Since Li is neither corrosive nor toxic, Li was used as a chem. tracer in the nuclear power plants to measure feedwater flow rate. 99.9% ⁷Li was injected into a feedwater line of an exptl. system and sample were taken downstream to be spiked with 95% ⁶Li for the **isotope diln.** measurements. Effects of uncertainties in the **spike** enrichment and isotope ratio measurement error at various **spike**-to-sample ratios are presented together with the flow rate measurement results in comparison with a vortex flow meter.

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STN INTERNATIONAL LOGOFF AT 11:13:07 ON 09 JUN 2006